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10/582,079

08/01/2006

Edith Sorensen

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7055 7590 12/07/2009  
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EXAMINER

KENNEDY, NICOLETTA

ART UNIT

PAPER NUMBER

1611

NOTIFICATION DATE

DELIVERY MODE

12/07/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/582,079 | <b>Applicant(s)</b><br>SORENSEN, EDITH |  |
|                              | <b>Examiner</b><br>Nicoletta Kennedy | <b>Art Unit</b><br>1611                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 16-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 22-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/21/08, 7/10/08, 10/26/06</u> .                             | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

Claims 1-29 are currently pending. Claims 16-21 are withdrawn as drawn to a non-elected group.

### ***Priority***

This application, filed June 8, 2006, is a national stage entry of PCT/EP04/13963, filed December 8, 2004. PCT/EP04/13963 is a continuation in part of PCT/EP03/13873, filed December 8, 2003.

### ***Election/Restrictions***

1. Applicant's election with traverse of the invention of group I, claims 1-15 and 22-29 in the reply filed on September 17, 2009 is acknowledged. The traversal is on the ground(s) that unity of invention is not broken by US/2002/0061282 because the examiner has only pointed to isolated portions of US 2002/0061282. Applicants' remarks are acknowledged, however, in view of the prior art applied below in the instant office action, the special technical feature of claim 1 does not make a contribution over the prior art and therefore the technical feature recited in claim 1 is not special. Accordingly the groups are not so linked as to form a single general concept under PCT Rule 13.1.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 16-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, there being no allowable generic or

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linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on September 17, 2009.

3. Claims 1-15 and 22-29 are under consideration

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lion Corp (JP 01-172315) (pub. July 7, 1989) as evidenced by Grodberg (US 5,156,845) (pub. Oct. 20, 1992).

Lion Corp teaches a chewing gum comprising calcium pyrophosphate present at 2.0% by weight (example 7). The gum base and powder sugar make up 80% of the composition, resulting in more than 75% solids (example 7). Powder sugar, a sweetener, is a gum or lozenge additive (example 7). Lion Corp. teaches that the composition may be a gum or troche (lozenge) and may be used to improve the whiteness of the tooth (p. 1). Although Lion Corp. teaches an example with chewing gum and thus has a chewing gum base, gum bases are used as lozenge bases as evidenced by Grodberg (column 3, example 1).

Therefore, Lion Corp. as evidenced by Grodberg anticipates claims 1-4 and 22-23.

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***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 6-9, 11, 14 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lion Corp (JP 01-172315) (pub. July 7, 1989) as evidenced by Grodberg (US 5,156,845) (pub. Oct. 20, 1992) and in view of Majeti et al. (US 6,682,722) (filed Sept. 3, 2002).

Regarding claim 1, Lion Corp teaches a chewing gum comprising calcium pyrophosphate present at 2.0% by weight (example 7). The gum base and powder sugar make up 80% of the composition, resulting in more than 75% solids (example 7). Powder sugar, a sweetener, is a gum or lozenge additive (example 7). Lion Corp. teaches that the composition may be a gum or troche (lozenge) and may be used in improve the whiteness of the tooth (p. 1). Although Lion Corp. teaches an example with of chewing gum and thus has a chewing gum base, gum bases are used as lozenge

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bases as evidenced by Grodberg (column 3, example 1). However, Lion Corp does not teach that the composition comprises sodium bicarbonate as an additional tooth whitening agent. Majeti et al. cure this deficiency.

Regarding claims 6-9, 11, 14 and 24-25, Majeti et al. teach oral care compositions for whitening of teeth (abstract) wherein the composition may be a lozenge (claim 9). The composition may comprise an alkali metal bicarbonate salt, preferably sodium bicarbonate, present from about 0.5% to about 5% (column 15, lines 42-51). MPEP 2144.05 states that “[i]n the case where the claimed ranges ‘overlap or lie inside ranges disclosed by the prior art’ a *prima facie* case of obviousness exists” quoting *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). In the instant case, the claimed ranges overlap or lie inside the ranges disclosed by Majeti et al. and are therefore *prima facie* obvious.

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Lion Corp as evidenced by Grodberg with those of Majeti et al. to incorporate sodium bicarbonate into the composition. One would have been motivated to do so because Lion Corp teaches that the composition may whiten teeth and sodium bicarbonate (baking soda) is a tooth whitening agent.

Regarding claims 11, 14 and 26, Majeti et al. teach that the oral care composition may comprise urea peroxide present at 5.5% (column 19, example 4, IV G).

Regarding claims 27-29, Majeti et al. teach that the oral care composition may comprise urea peroxide as a bleaching agent from about 0.1% to about 20.0% (claim

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13). MPEP 2144.05 states that “[i]n the case where the claimed ranges ‘overlap or lie inside ranges disclosed by the prior art’ a *prima facie* case of obviousness exists” quoting *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). In the instant case, the claimed ranges lie inside the range disclosed by Majeti et al. and are therefore *prima facie* obvious.

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Lion Corp as evidenced by Grodberg with those of Majeti et al. to incorporate urea peroxide into the composition. One would have been motivated to do so because Lion Corp teaches that the composition may whiten teeth and urea peroxide is a tooth bleaching agent.

9. Claims 1, 5, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lion Corp (JP 01-172315) (pub. July 7, 1989) as evidenced by Grodberg (US 5,156,845) (pub. Oct. 20, 1992) and in view of Holme et al. (US 6,685,916) (filed Oct. 31, 2002).

Regarding claim 1, Lion Corp teaches a chewing gum comprising calcium pyrophosphate present at 2.0% by weight (example 7). The gum base and powder sugar make up 80% of the composition, resulting in more than 75% solids (example 7). Powder sugar, a sweetener, is a gum or lozenge additive (example 7). Lion Corp. teaches that the composition may be a gum or troche (lozenge) and may be used in improve the whiteness of the tooth (p. 1). Although Lion Corp. teaches an example with of chewing gum and thus has a chewing gum base, gum bases are used as lozenge

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bases as evidenced by Grodberg (column 3, example 1). However, Lion Corp does not teach that the composition is essentially sugar free or that the lozenge is hard-boiled.

Holme et al. cure these deficiencies.

Regarding claim 5, Holme et al. teach a composition for removing stains from dental surfaces. The composition may be a confectionary including lozenges (column 3, lines 47-53). The sweetener used in the confectionary may comprise sugar or be sugarless and instead use sugarless sweeteners such as sorbitol, mannitol, xylitol and maltitol (column 10, lines 33-41 and column 12, lines 9-15).

It would have been prima facie obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Lion Corp as evidenced by Grodberg with those of Holme et al. to substitute sugarless sweetener for sugar in the composition. One would have been motivated to do so because using sugarless sweeteners reduces the amount of calories in the lozenge and does not contribute to the formation of dental plaque.

Regarding claim 10, Holme et al. teach that the composition may comprise encapsulated peroxide (claims 1 and 27). The peroxide is the active ingredient in the composition (abstract).

It would have been prima facie obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Lion Corp as evidenced by Grodberg with those of Holme et al. to encapsulate the active ingredients in the composition. One would have been motivated to do so to control the release of the active ingredients.



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Regarding claim 15, Holme et al. teach that the confectionary may be hard-boiled (column 12, line 21).

10. Claims 1, 5 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lion Corp (JP 01-172315) (pub. July 7, 1989) as evidenced by Grodberg (US 5,156,845) (pub. Oct. 20, 1992) and in view of Ning et al. (US 6,703,000) (filed May 15, 2002).

Regarding claim 1, Lion Corp teaches a chewing gum comprising calcium pyrophosphate present at 2.0% by weight (example 7). The gum base and powder sugar make up 80% of the composition, resulting in more than 75% solids (example 7). Powder sugar, a sweetener, is a gum or lozenge additive (example 7). Lion Corp. teaches that the composition may be a gum or troche (lozenge) and may be used in improve the whiteness of the tooth (p. 1). Although Lion Corp. teaches an example with of chewing gum and thus has a chewing gum base, gum bases are used as lozenge bases as evidenced by Grodberg (column 3, example 1). However, Lion Corp does not teach that the composition further comprises Vitamin C. Ning et al. cure this deficiency.

Regarding claims 5 and 12-13, Ning et al. teach a confectionary composition comprising oral care active agents (abstract) that is sugar-free (column 1, line 19). The composition may further comprise nutrients to improve the condition of the oral cavity, including vitamins such as Vitamin C (column 15, lines 5-19).

It would have been prima facie obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Lion Corp as

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evidenced by Grodberg with those of Ning et al. to substitute sugarless sweetener for sugar in the composition and to include Vitamin C. One would have been motivated to do so because using sugarless sweeteners and including Vitamin C improves the condition of the oral cavity and reduces plaque formation.

### ***Conclusion***

No claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicoletta Kennedy whose telephone number is (571)270-1343. The examiner can normally be reached on Monday through Thursday 8:15 to 6:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Gollamudi Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. K./

Examiner, Art Unit 1611

/David J Blanchard/

Primary Examiner, Art Unit 1643